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Position Paper on amendments to the Network Quality and Reliability of Supply Code

Electricity Market Review

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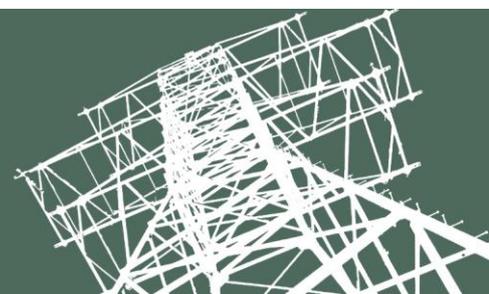


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Executive Summary

The Western Australian Government is implementing reforms to electricity network regulation by adopting the National Electricity Law regulatory framework. Legislation is currently progressing through Parliament to transfer regulation of the Western Power network to the Australian Energy Regulator under the national regulatory framework.

Regulation of Western Power's transmission and distribution networks under the national framework will mean that the current regulatory arrangements under the *Electricity Networks Access Code 2004* and associated Access Arrangement and Technical Rules will cease to apply to the Western Power network from 1 July 2018. The national framework, specifically the National Electricity Rules, will be the primary basis on which access to Western Power's network will be regulated from 1 July 2018.

However, the national regulatory framework does not prescribe service standards, network capacity planning criteria or all aspects of power quality performance standards that are to apply to electricity networks. These matters are left to jurisdictional Governments to specify through local regulatory frameworks. Consequently, transferring regulation of Western Power's network to the national framework will require the Western Australian Government to retain responsibility for setting service standards, network capacity planning criteria and power quality performance standards for electricity networks in the State.

The Electricity Market Review has considered how service standards, network capacity planning criteria and power quality performance standards are currently prescribed for Western Power's network to determine how these can be transferred to other instruments to ensure these matters can continue to be appropriately specified when Western Power commences regulation under the national framework.

The Electricity Market Review has determined that the most appropriate jurisdictional regulatory instrument for service standards, network capacity planning criteria and power quality performance standards will be the *Network Quality and Reliability of Supply Code 2005* (NQRS Code). The main advantage of using the NQRS Code is that it is an existing regulatory instrument and already contains some of the elements of these criteria that apply to electricity networks in Western Australia.

This position paper sets out the changes to the current NQRS Code to facilitate the continued jurisdictional regulation of service standards, network capacity planning criteria and power quality performance standards in respect of Western Power's network from 1 July 2018.

The changes fall into four categories: service standards, network capacity planning criteria and power quality performance standards, governance and implementation matters. A small number of administrative amendments have also been adopted to improve the administrative efficiency of the NQRS Code.

The objective of the Electricity Market Review has been to transfer the existing service standards, network capacity planning criteria and power quality performance standards from the Access Arrangement and Technical Rules into the NQRS Code without change. Changes have only been made to accommodate constrained network access and to align terminology in the NQRS Code. The existing service standards, network capacity planning

criteria and power quality performance standards have been maintained on the basis that Western Power's most recent Service Standard Performance Report published by the Economic Regulation Authority¹ shows that Western Power is currently meeting these standards. Consequently, maintaining these standards would ensure that no additional costs would be created for consumers. It is intended that if any changes are required to the service standards, network capacity planning criteria or power quality performance standards from their current levels that the governance framework will be applied to assess any cost implications for consumers. The Economic Regulation Authority is best placed to weigh up these cost implications against the benefits to consumers once the governance framework is introduced on 1 July 2018.

Service standards

Service standards can refer to the minimum technical standard and/or reliability of delivered electricity and are an important measure of network performance experienced by consumers.

Service standards that currently apply to Western Power's distribution and transmission network under the Access Arrangement will be transferred to the NQRS Code. These service standards will only apply to Western Power's distribution and transmission networks (and not any other network). The service standard benchmarks, definitions and exclusions have not been altered and include measures for distribution (System Average Interruption Duration Index and System Average Interruption Frequency Index) and transmission (circuit availability, system minutes interrupted, loss of supply event frequency and average outage duration). Other current service standard within the NQRS Code will continue to apply to other networks in the State.

Network capacity planning criteria and power quality performance standards

The network capacity planning criteria and power quality performance standards apply to the transmission and distribution network. The network capacity planning criteria specify minimum requirements on the network service provider to continue to provide a quality of supply to consumers when all network elements are in service, as well as during planned and unplanned outage events. The power quality performance standards relate to the elements of the supply that consumers can perceive either visibly through flicker or audibly through buzzing, and that support normal appliance function during normal operating conditions in the network.

The transmission and distribution planning criteria will be transferred into the revised NQRS Code from the Western Power Technical Rules and apply only to Western Power. Some definitional and administrative changes have been incorporated to assist with clarity of interpretation and to address the network moving to a constrained access model.

Power quality performance standards specifying planning levels for voltage fluctuations, harmonic distortion, and electromagnetic interference from the Technical Rules that are applicable to Western Power's network will be transferred into the NQRS Code and only apply to Western Power's transmission and distribution networks.

¹ Western Power, Service Standard Performance Report 2014/15, September 2015, Available from: <https://www.erawa.com.au/electricity/electricity-access/western-power-network/service-standards>

Governance

The Electricity Market Review has also considered the appropriateness of the governance arrangements of the current NQRS Code. The NQRS Code is currently maintained by the Minister for Energy and allows for the Minister to approve exemptions from compliance with certain clauses of the NQRS Code. The existing governance framework is simplistic and has not been applied to review the service standards, network capacity planning criteria and power quality performance standards to date.

The Electricity Market Review has developed a new governance framework for the NQRS Code to apply from 1 July 2018. The new governance framework has been developed with the Economic Regulation Authority as the decision-maker and administrator, replacing the Minister for Energy in those roles. In undertaking this role the Economic Regulation Authority may seek advice from an advisory panel and other advisors.

The governance framework can be utilised by all networks to which the revised NQRS Code will apply. The governance framework provides for amendment and exemption processes that can be initiated by (i) the Minister for Energy, (ii) network service providers, and (iii) the Economic Regulation Authority itself. It is intended that anyone else seeking to apply the amendment and exemption processes will do so indirectly by making representations to any of these three parties. This will ensure administration costs associated with the governance framework are kept to a minimum, and that amendments to the NQRS Code are made in an orderly manner while having regard to the broader regulatory framework and associated processes. For customers connecting to a network, the existing provisions in the NQRS Code that allows for a customer and the network service provider to agree to modify or exclude certain provisions have been retained and expanded to include the additional service standards, network capacity planning criteria and power quality performance standards. It is intended that in these circumstances amendment or exemption applications to the Economic Regulation Authority can be avoided.

To guide the Economic Regulation Authority in making decisions the NQRS Code will include an overarching objective. The objective is designed to require the Economic Regulation Authority to consider the long term interests of consumers in relation to price, quality, reliability and security of electricity supply in making any decisions pertaining the NQRS Code. Furthermore, in approving amendments and exemptions, the Economic Regulation Authority will be required to demonstrate how it has considered the advice sought from other parties, including the advisory panel, and by engaging stakeholders through a public consultation process.

Implementation considerations

The amendments to the NQRS Code apply from 1 July 2018. Until 30 June 2018 the service standards, network capacity planning criteria and power quality performance standards that currently exist in the Access Arrangement and Technical Rules will continue to apply. The amendments to the NQRS Code will be implemented in two phases.

1. The amendments to the service standards, network capacity planning criteria and power quality performance standards that will apply to Western Power from 1 July 2018 will be reflected in a revised NQRS Code from late-2016 to assist with the Australian Energy Regulator's first determination for Western Power by allowing for the Australian Energy Regulator's determination on Western Power's

regulatory proposal for the first regulatory control period to provide for the costs associated with complying with the revised NQRS Code.

2. The amendments to the governance framework will be implemented in mid-2017, following the passage of amendments to the *Electricity Industry Act 2004* through Parliament.

No changes to the NQRS Code are intended for service providers other than Western Power unless otherwise identified.

Existing relevant exemptions will be grandfathered, including those granted under the Western Power Technical Rules.

Submissions process

Respondents are invited to comment on all aspects addressed in this position paper by 7 October 2016 and must be sent to electricitymarketreview@finance.wa.gov.au.

More details are provided in section 7 of this position paper.

1. Introduction

Subject to passing of the National Electricity (Western Australia) Bill 2016 into law, Western Power's transmission and distribution networks will be regulated by the Australian Energy Regulator under the national regulatory framework from 1 July 2018.

Under the national framework, the National Electricity Rules will be the primary source of regulatory obligations and oversight of the Western Power network. The requirement for an Access Arrangement and associated Technical Rules under the *Electricity Networks Access Code 2004* will cease to apply to the Western Power network on 30 June 2018.

The national framework does not extend to regulating obligations on electricity networks in relation to service standards, network capacity planning criteria or all aspects of power quality performance standards. These aspects, while extremely important in ensuring the delivery of a reliable electricity supply to customers, are required to be regulated by jurisdictional governments through local regulatory frameworks. The electricity networks are then expected to provide access to, and manage expenditure on the network under the national framework with reference to the specified jurisdictional requirements.

The service standards, network capacity planning criteria and power quality performance standards that apply to Western Power are currently contained in its approved Access Arrangement as well as in its approved Technical Rules. Once the *Electricity Networks Access Code 2004* ceases to apply to Western Power, these regulatory instruments will no longer be the appropriate documents to specify and regulate service standards, network capacity planning criteria and power quality performance standards.

Consequently, the Electricity Market Review has considered what might be the best jurisdictional regulatory instrument to ensure continued regulation and application of obligations on the Western Power network for maintaining service standards, network capacity planning criteria and power quality performance standards.

The current *Network Quality and Reliability of Supply Code 2005* (NQRS Code) made under the *Electricity Industry Act 2004* is the most logical and appropriate instrument to serve as Western Australia's jurisdictional instrument for regulating network reliability and quality criteria and service standards applicable to Western Power's network. However, the NQRS Code as it is currently drafted, is not wholly fit for purpose to apply to the Western Power network when regulation commences under the national framework.

The current NQRS Code establishes the standards for electricity supply reliability in Western Australia. The NQRS Code came into operation on 1 January 2006, under the authority of the *Electricity Industry Act 2004*. The NQRS Code currently creates rules pertaining to the quality and reliability of electricity supply, setting out standards for:

- allowable voltage fluctuations, harmonics and other parameters;
- the interruption of supply to individual customers; and
- the duration of interruption of supply in particular areas.

The NQRS Code also includes:

- minimum service standards;

- the Customer Reliability Payment Scheme; and
- requirements for public reporting of performance.

The NQRS Code applies to network service providers and licence holders of a transmission, distribution or integrated regional licence throughout Western Australia.

The Electricity Market Review is making changes to the NQRS Code so that it will be fit for purpose when regulation commences under the national framework on 1 July 2018. Changes will be made to the NQRS Code to transfer the service standards, network capacity planning criteria and power quality performance standards for Western Power from the Access Arrangement and Technical Rules. Furthermore, a new governance framework in the revised NQRS Code will make the Economic Regulation Authority the principal decision-maker on monitoring and approving future changes to service standards, network capacity planning criteria and power quality performance standards.

Transferring the service standards, network capacity planning criteria and power quality performance standards to the NQRS Code ensures that the current level of service of electricity related services experienced by consumers is maintained. The current standards are being maintained and transferred into the NQRS Code so as to not drive additional costs for consumers, as these standards are being met by Western Power. In the future, if changes are required to the service standards, network capacity planning criteria or power quality performance standards there may be cost implications for consumers. The Economic Regulation Authority is best placed to weigh up these cost implication against the benefits seen by consumers following the introduction of the governance framework on 1 July 2018.

The existing provisions of the NQRS Code will be retained for other network service providers and licence holders as they currently apply.

This position paper sets out:

- discussion on the service standards that will be transferred into the revised NQRS Code from Western Power's Access Arrangement;
- discussion on the network capacity planning criteria and power quality performance standards that will be transferred into the revised NQRS Code from the Western Power Technical Rules;
- the governance framework that will apply to the revised NQRS Code and allow for network service providers, the Minister and the ERA to make amendment to the NQRS Code from 1 July 2018; and
- implementation considerations.

A draft version of the revised NQRS Code has been published alongside with this paper for consultation.

Submissions are invited on the revised NQRS Code. While specific matters on which submissions are sought are identified throughout this paper, submissions need not be limited to these matters.

2. Service standards

The existing service standards that are currently part of Western Power's Access Arrangement will be transferred from the Access Arrangement into the revised NQRS Code. These will replace the existing minimum service levels in the NQRS Code for Western Power only. Other network service providers will continue to need to comply with the existing minimum service levels in the NQRS Code.

Service standards refer to the minimum technical standard and/or reliability of delivered electricity and are an important measure of network performance experienced by consumers.

The service standards that currently apply to Western Power are defined in Western Power's approved Access Arrangement² pursuant to the *Electricity Networks Access Code 2004*. As both the Access Arrangement and *Electricity Networks Access Code 2004* will fall away on 30 June 2018, these service standards will be transferred into the revised NQRS Code which will apply from 1 July 2018.

In transferring the service standards from the Access Arrangement to the NQRS Code, the definitions, exemptions and benchmarks for the various service standards will be transferred into the NQRS Code. This means that the existing service standards, and the associated benchmarks, defined for Western Power in Access Arrangement 3 will continue to apply into the first regulatory control period under the national framework. It is intended that if any changes are required to the existing service standards, and the associated benchmarks, that these will be progressed under the governance framework once this applies from 1 July 2018.

The following service standards from Western Power's Access Arrangement will be transferred into the revised NQRS Code without material modification. These include:

- Western Power's current distribution service standards - SAIDI (System Average Interruption Duration Index) and SAIFI (System Average Interruption Frequency Index)
- Western Power's current transmission service standards - circuit availability, system minutes interrupted, loss of supply event frequency and average outage duration.

Importantly, the existing service standard definitions (including exclusions) and service standard benchmark will be transferred into the revised NQRS Code without material modification. This is because the existing service standard definitions (including exclusions) and service standard benchmarks reflect the current system definition and performance of the Western Power network. Western Power's most recent Service Standard Performance Report published by the Economic Regulation Authority³ shows that Western Power is currently meeting these performance targets and that these standards provide a reasonable level of expected future minimum performance for consumers.

² Section 4 of Western Power's approved Access Arrangement provides service standard benchmarks for each reference service in accordance with the requirements of the Electricity Networks Access Code.

³ Western Power, Service Standard Performance Report 2014/15, September 2015, Available from: <https://www.erawa.com.au/electricity/electricity-access/western-power-network/service-standards>

The call centre service standard and street lighting repair time service standard will not be included in the NQRS Code, as they are not directly associated with network performance and form part of the Economic Regulation Authority's compliance reporting manual under its licensing function.

The *Electricity Networks Access Code 2004* requires Western Power to provide services at a *service standard at least equivalent to the service standard benchmarks*. In the revised NQRS Code the application of the minimum service standards to Western Power will continue to be applied on a "must" basis. For other network service providers the existing minimum service levels will continue to apply on a "as far as reasonably practicable" basis.

Transitional arrangements

The service standards transferred into the revised NQRS Code for Western Power will apply for the first regulatory control period through to 30 June 2022. If no subsequent changes are made to the NQRS Code, then from 1 July 2022, the service standards applicable to Western Power will revert to the existing reliability measures described in Part 2 of the NQRS Code including section 13.⁴

The reason for setting the service standards only for the first regulatory control period is to allow for the service standards that will apply for the second regulatory control period to be undertaken through the new governance framework. Under this framework, the Economic Regulation Authority will set the service standards, which will be based on the most up-to-date service performance and stakeholder preferences closer to the commencement of that period.

The amendment process for the NQRS Code (which commences 1 July 2018) can be used by the Minister for Energy, Western Power or the Economic Regulation Authority to seek amendments in the lead up to the second regulatory control period (or at any other time). The governance framework will also allow any of the network service providers in Western Australia to apply to the Economic Regulation Authority to nominate amendments, including alternate targets and measures, which are subject to review in accordance with the governance provisions described in section 5.

Summary of changes

Service standards will be transferred from the Access Arrangement to the revised NQRS Code as it will apply to Western Power. The service standards will be based upon the levels of service that currently apply to Western Power through the Access Arrangement.

Submissions providing feedback on the service standards to apply to Western Power are encouraged.

In particular, submissions are invited on:

1. Are there any aspects of the services standards that must be changed on transfer to the revised NQRS Code?

⁴ Unless they have been amended in the interim

2. Is deferring any changes to the services standards to the new governance framework practical?

3. Network capacity planning criteria and power quality performance standards

The network capacity planning criteria and power quality performance standards from Western Power's Technical Rules will be transferred to the revised NQRS Code. On transfer, the network capacity planning criteria and power quality performance standards provisions will be amended to accommodate the constrained access model and to align with provisions in the National Electricity Rules (where applicable). It is intended that any further changes required to the network capacity planning criteria and power quality performance standards will be progressed under the governance framework from 1 July 2018.

The network capacity planning criteria and power quality performance standards apply to both transmission and distribution networks. The network capacity planning criteria specify minimum requirements on the network service provider to continue to provide a quality of supply to consumers when all network elements are in service, as well as during planned and unplanned outage events. The power quality performance standards relate to the elements of supply that consumers can perceive either visibly through flicker or audibly through buzzing, and support normal appliance function during normal operating conditions in the network.

The existing Western Power Technical Rules adopts deterministic criteria that the service provider *must comply with*. This approach will continue to apply to the network capacity planning criteria and power quality performance standards when they are transferred to the revised NQRS Code.

Power quality performance standards

The requirements for Western Power to comply with specified levels for voltage fluctuation, harmonics voltage distortion and for electromagnetic interference limits in the Western Power Technical Rules will be transferred into the revised NQRS Code. Specifically, the following clauses from Western Power Technical Rules will be transferred into the revised NQRS Code:

- Flicker - 2.2.3 (b) and 2.3.3 (a)-(c)
- Harmonics - 2.2.4 and 2.3.4 (a)
- Electromagnetic Interference - 2.2.6 and 2.3.6
- Assessment of power system performance - 2.3.9 (b)

Network capacity planning criteria

The existing network capacity planning criteria defined in Western Power's Technical Rules will be transferred into the revised NQRS Code for Western Power. Specifically, the following clauses from Western Power Technical Rules will be transferred into the revised NQRS Code:

- Application - 2.5.1
- Transmission system - 2.5.2

- Perth CBD Criterion - 2.5.3
- Zone substations - 2.5.4
- High voltage distribution system - 2.5.5
- Low voltage distribution system - 2.5.6
- Fault limits - 2.5.7
- Maximum fault currents - 2.5.8
- Distribution design criteria - 2.6

Where relevant, the Western Power Technical Rules clauses will be amended so that they are compatible with the national framework. The necessary amendments include:

- The transition of the operation of the South West Interconnected System from an ‘unconstrained access’ regime for generator connection to a ‘constrained access’ regime.
- The application of the N-1 criterion to the Kalgoorlie-Boulder city and Coolgardie town loads to allow for the status quo level of reliability to continue in the Goldfields.
 - It is expected that the current contract for the provision of Dispatch Support Services will terminate at the start of the new market arrangements.
 - It is therefore necessary to specify this requirement in a transparent manner in the NQRS Code so that a new arrangement can be put in place when the new framework commences on 1 July 2018.
- The adoption of the National Electricity Rules approach for Technical Rule 2.5.2.4, which has not been transferred to the NQRS Code.
 - This rule relates to power system security and is not a capacity planning criteria requirement. It will be made consistent with the National Electricity Rules which integrates circuit breaker failure with the requirements for designing protection systems.

The revised NQRS Code incorporates the Technical Rules definition of credible contingency events, consistent with the Electricity Market Review’s approach to transfer the relevant Technical Rules into the revised NQRS Code. With respect to power system security, the Electricity Market Review is currently reviewing the set of credible and non-credible contingency events applicable to the operation of the Western Power network. The Electricity Market Review is aware that under the National Electricity Rules there are differences in the credible contingency events that apply to the operation of the power system under Chapter 4 and those that apply to planning the network under schedule 5.1. A position paper on Power System Security and Reliability (Adaption of Chapter 4 of the National Electricity Rules) is scheduled to be published in late October 2016. The Electricity Market Review will consider if there is a need to align the definition of credible contingency events in the revised NQRS Code with the credible contingency events applicable to power system security, following consultation on the position paper on Power System Security and Reliability.

The Electricity Market Review is aware that Western Power is currently seeking amendments to the existing Western Power Technical Rules under the current governance arrangements. The Economic Regulation Authority's final decisions will be incorporated into the revised NQRS Code, where applicable and to the extent possible, given that the timing of the gazettal of the revised NQRS Code will be late 2016.

The existing Western Power Technical Rules are not currently subject to performance audits under the *Electricity Industry Act 2004* electricity licensing system. To avoid unintended costs, it is not intended that the transfer of the network capacity planning criteria to the revised NQRS Code will cause these to be subject to performance audits. However it may be determined in future that benefits will likely accrue to consumers from the implementation of performance audits. To allow for the eventuality of performance audits, the revised NQRS Code will only exclude performance audits on network capacity planning criteria until 30 June 2022.

Summary of changes

The network capacity planning criteria and power quality performance standards will be transferred to the revised NQRS Code, which will only apply to Western Power. The network capacity planning criteria and power quality performance standards will be based upon the requirements already defined within Western Power's Technical Rules.

Submissions providing feedback on the network capacity planning criteria and power quality performance standards to apply to Western Power are encouraged.

In particular, submissions are invited on:

1. Are there any aspects of the network capacity planning criteria or power quality performance standards that must be changed on transfer to the revised NQRS Code?
2. Is deferring any changes to the network capacity planning criteria or power quality performance standards to the new governance framework practical?

4. Other administrative changes

A number of other changes have been made to the revised NQRS Code to assist its administration.

4.1 Notice of proposed interruptions

The revised NQRS Code provides for notifications of planned interruptions to occur by electronic means, such as email or SMS. In addition, it allows notification by post to the customer's postal address when requested by the customer instead of notification by post to the premises concerned.

These changes bring the NQRS Code into line with the notification requirements under the Small Use Customer Code, however, it is noted that the Small Use Customer Code provides additional notification requirements for life support customers.

4.2 Interruptions to reconnect supply

The NQRS Code currently requires a transmitter or distributor to give a customer 72 hours' notice of a planned interruption where that interruption exceeds certain time frames.

The revised NQRS Code exempts transmitters or distributors from this obligation if the reason for the interruption is to reconnect supply.

A reconnection of supply situation generally occurs when, following an emergency or fault, a distributor must disconnect temporary generators for a period in order to reconnect customers to the permanent network. It is impractical a distributor to delay restoring the permanent network supply for the 72 hours required by the NQRS Code so a customer can be notified that supply will be interrupted while permanent supply is being restored. Additionally, a delay in restoring the permanent network supply would affect all the customers on that section of the network.

This change to the NQRS Code is consistent with recent change to the notification requirements for life support customers under the Small Use Customer Code.

Submissions providing feedback on the administrative amendments are encouraged.

5. Governance

The NQRS Code is currently maintained by the Minister for Energy and empowers the Minister to approve exemptions. The existing governance framework is simplistic and has not been applied to review the service standards, network capacity planning criteria and power quality performance standards to date.

The Electricity Market Review has developed a new governance framework for the NQRS Code which will apply from 1 July 2018. The new governance framework has been developed with the Economic Regulation Authority as the decision-maker and administrator, replacing the Minister for Energy in those roles. In undertaking this role, the Economic Regulation Authority may seek advice from an advisory panel and other advisors.

The governance framework is based on the Technical Rules governance framework within the *Electricity Networks Access Code 2004* and is being adopted without significant modification. The Technical Rules governance framework is being adopted because it incorporates the following features:

1. It will allow the NQRS Code to be managed in a manner that delivers a level of performance that is consistent with consumers' preferences assessed in terms of the value customers place on supply quality and reliability;
2. It is expected to be cost effective; that is, it will achieve the desired outcomes through a process that imposes the least additional cost on consumers; and
3. The process for setting network quality and reliability requirements will be transparent and public with the assessment and considerations used in setting performance standards published.

All Australian jurisdictions have the equivalent of a planning and reliability standards code that transmission and distribution network service providers must comply with. However, the governance framework differs across jurisdictions. In developing the governance framework for Western Australia, the Electricity Market Review has sought to be consistent with the nature of obligations within the existing codes in the Western Australian regulatory framework. The Electricity Market Review considers that the amendments to the revised NQRS Code incorporate functions and characteristics of good governance practice.

The contents of other jurisdictional codes are dominated by jurisdictional policy settings, which have typically been subject to regular review. In Western Australia, the NQRS Code has not been subject to regular review to determine if the required standards and requirements continue to provide a level of service commensurate with consumer value.

The governance framework will enable the Economic Regulation Authority to administer the revised NQRS Code. This includes undertaking reviews to ensure the requirements are fit for purpose for Western Australia, are consistent with good industry practice, and can be progressively aligned with the national framework (consistent with other jurisdictions), where there is a benefit to Western Australian consumers.

5.1 Roles and accountabilities

The Economic Regulation Authority will continue to support the day-to-day operation and governance of the revised NQRS Code as it does currently for the Technical Rules and the existing NQRS Code. It will also continue to enforce the NQRS Code under the Electricity Industry Act 2004 electricity licensing system.

The change in authority from the Minister for Energy to the Economic Regulation Authority, as indicated in the previous section, will require the Economic Regulation Authority be given specified powers under the *Electricity Industry Act 2004*. The necessary changes to the *Electricity Industry Act 2004* to accommodate these specified powers will be made in the second half of 2017.

The Economic Regulation Authority will undertake the decision-making and administrative functions of the revised NQRS Code for the following reasons:

- It maintains local control over the power quality and reliability requirements, enabling state specific matters to be appropriately accommodated and the interests of consumers of this market to be adequately represented.
- It provides market participants and consumers with an independent body for consultation and improves governance and transparency around decision making and setting of standards.
- It has familiarity with the design and operation of the Western Australian electricity market, NQRS Code, Service Standards and Technical Rules that already exist in Western Australia.
- It already undertakes a governance role for the existing Western Power Technical Rules and Service Standards, and makes use of expert consultants where additional technical expertise is required.
- Good governance practice supports separation of the ‘standard setter’ role from network service providers. It is advantageous for the Economic Regulation Authority to consider the economic implications of changes to the technical aspects of the NQRS Code in accordance with the objective.

In the revised NQRS Code the Minister for Energy will retain the ability to request reviews by the Economic Regulation Authority of provisions and obligations in the NQRS Code at any time. The Minister may also grant exemptions or variations to payments made by the electricity corporations under Part 3 of the NQRS Code.

5.1.1 Advisers to the Economic Regulation Authority

The governance framework provides for the Economic Regulation Authority to seek advice from the Director of Energy Safety and from an advisory panel.

Role of Director of Energy Safety

The revised NQRS Code includes provision for advice from the Director of Energy Safety at the request of the Economic Regulation Authority.

The Director of Energy Safety currently provides advice to the Economic Regulation Authority on a number of matters, including as part of the Economic Regulation Authority’s

consideration of Western Power's Technical Rules. Consistent with the current provisions within the *Electricity Networks Access Code 2004*, the Director of Energy Safety will not be obliged to provide advice to the Economic Regulation Authority under the revised NQRS Code.

Introduction of an advisory panel

The revised NQRS Code provides for the Economic Regulation Authority to seek advice from a suitably qualified advisory panel as part of a review of an application for an amendment, or other matter received from a service provider or as directed by the Economic Regulation Authority.

This is similar to the Technical Rules Committee constituted under the *Electricity Networks Access Code 2004*. This committee has previously assisted the Economic Regulation Authority with administering Western Power's Technical Rules. There are also similarities with the Metering Advisory Committee that Economic Regulation Authority may establish under the Metering Code.

The role of the advisory panel will be as adviser to the Economic Regulation Authority. It is envisaged that this advice will be separate from any economic analysis undertaken by the Economic Regulation Authority. The Economic Regulation Authority retains the decision-making function having requested and considered the advice provided to it by the advisory panel. The panel's membership will consist of persons with interest in the development and application of the matters pertaining to the NQRS Code.

While not specifically required under the revised NQRS Code, the advisory panel may be enacted in practice largely through the Reliability Advisory Committee. This avoids the need for separate advisory panels/committees to support the various roles the Economic Regulation Authority.

The Reliability Advisory Committee can only be a subset of the NQRS code advisory panel as Reliability Advisory Committee membership must include a representative of the Coordinator of Energy and may include representatives from outside the South West Interconnected Network. This latter is a consequence of the fact that the NQRS Code applies throughout the state of Western Australia.

5.1.2 Network Service Providers

Under the revised NQRS Code, each network service provider will remain responsible for delivery of quality and reliability of electricity supply relating to its network and operations. As part of this role, each network service provider will continue to be required by the NQRS Code to maintain compliance systems to monitor and report against the reliability and quality standards defined in the NQRS Code.

5.1.3 Stakeholders

The revised NQRS includes provision for public consultation at the discretion of the Economic Regulation Authority. This is discussed in more detail in section 5.3.

5.1.4 Australian Energy Regulator

The Australian Energy Regulator does not have a role in the governance framework for the NQRS Code. However, the Australian Energy Regulator will undertake annual network performance reporting of network service providers operating under the National Electricity

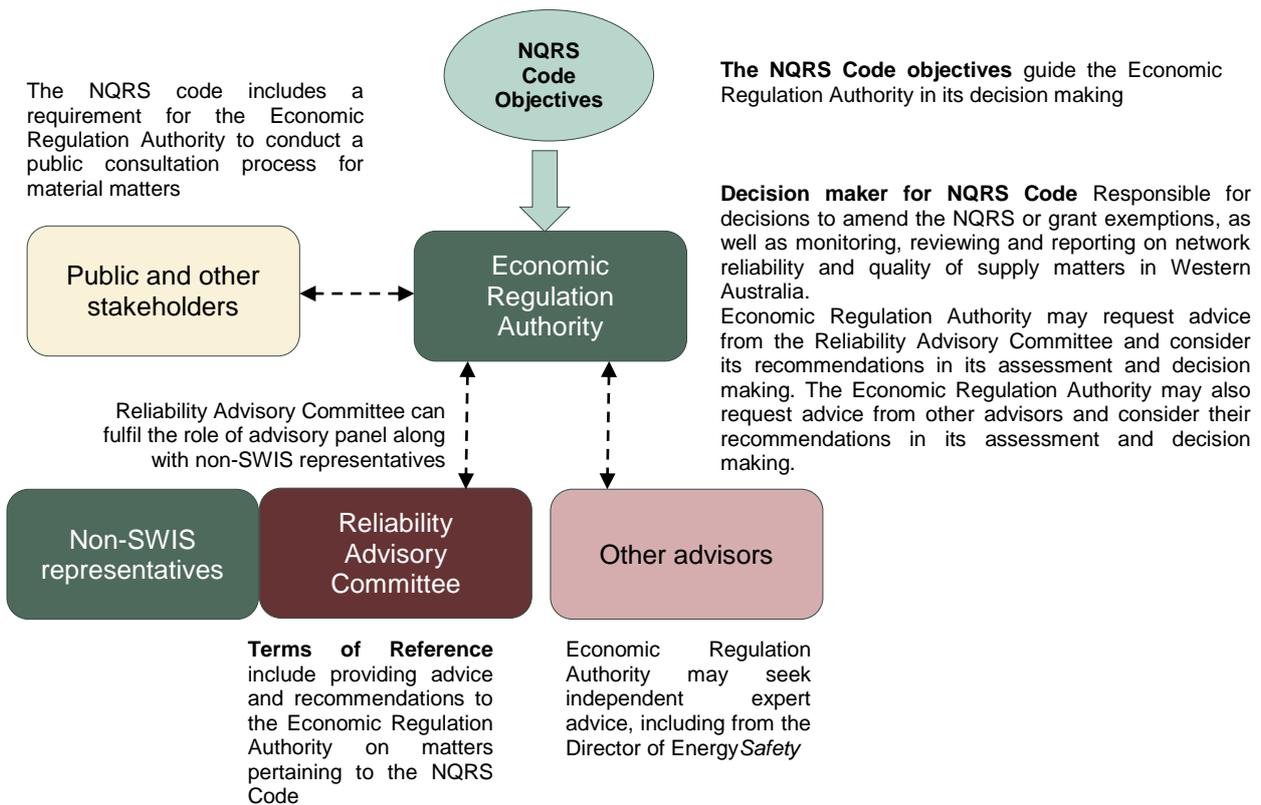
Law. From 1 July 2018, Western Power will be included in the reporting by the Australian Energy Regulator.

In addition, the Australian Energy Regulator will assess any Regulatory Investment Test proposal submitted by Western Power that is driven by the revised NQRS Code.

5.1.5 Summary of amendments

The diagram below summarises the sources of guidance, and sources of information and advice available to the Economic Regulation Authority in undertaking its roles and accountabilities under the NQRS Code.

Figure 5.1: Guidance and support for the Economic Regulation Authority



Submissions providing feedback on the roles and accountabilities are encouraged, particularly in regards to the role of the Economic Regulation Authority and Reliability Advisory Committee.

5.2 Objective

An objective has been incorporated into the revised NQRS Code to guide decision-making by the Economic Regulation Authority.⁵

The objectives of the NQRS Code are to —

1. define network quality and reliability of supply standards for the supply of electricity to consumers; and
2. promote efficient investment in, and efficient use of, electricity services that is in the long term interests of Western Australian consumers of electricity with respect to price, quality, reliability and security of supply of electricity.

The objective was developed by the Electricity Market Review considering the intent and scope of the National Electricity Objective and the *Electricity Networks Access Code 2004*, but draws heavily from the National Electricity Objective.

The objective will guide any decision made by the Economic Regulation Authority in assessing requests for amendments to the NQRS Code or to grant an exemption. The intent is to avoid network expenditure that is disproportionately large compared to the benefit to consumers (measured in terms quality, reliability and security of electricity supply).

Submissions providing feedback on the objective in the revised NQRS Code are encouraged.

5.3 Managing changes to the Code, including exemptions

The management of changes to the revised NQRS Code will be based on an inclusive and transparent review process. The change processes include:

- Review on request – to allow for a review of the NQRS Code to be conducted on request;
- Amendment process – to permanently amend the NQRS Code; and
- Exemption process – to exempt an entity from a particular requirement of the NQRS Code without amendment.

Review on request

The Minister for Energy or the Economic Regulation Authority is able to initiate a review of the revised NQRS Code.

The Minister's ability to initiate a review is similar to provisions in the National Electricity Market that allows for National Electricity Market Ministers to instruct the Australian Energy Market Commission to review aspects of the National Electricity Rules and is appropriate in

⁵ Similar to how the Electricity Networks Access Code 2004 requires a review of the existing Technical Rules against the objectives of Chapter 12 and the Code objective (as outlined in section 2.2.1 of the Electricity Networks Access Code 2004).

Western Australia with the change of decision making body from the Minister for Energy to the Economic Regulation Authority.

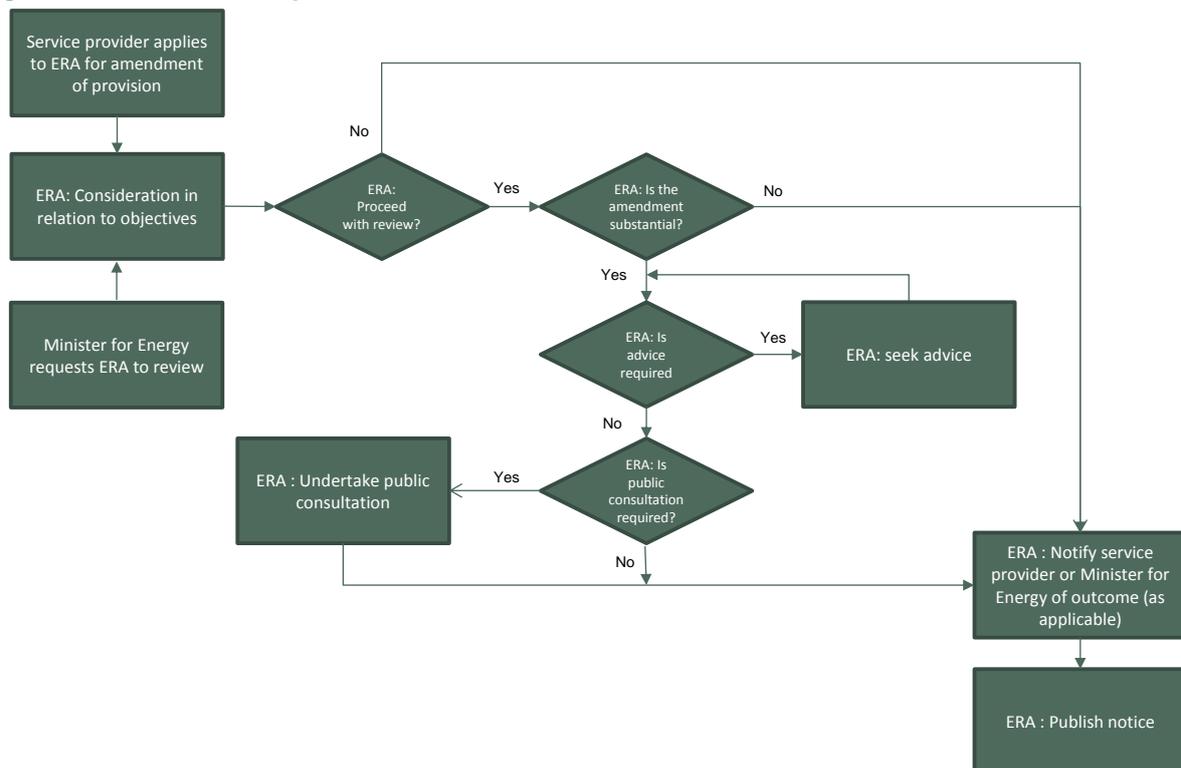
Reviews of the NQRS Code initiated by the Economic Regulation Authority will be on an ‘as required’ basis. A fixed review period has not been specified because of the likely cost associated with undertaking such a review process. In addition, there is the concern that a fixed review period will lead to sub-optimal timing in relation to the Australian Energy Regulator’s periodic determination process.

Application for amendment by network service provider

Network service providers will be able to apply to the Economic Regulation Authority to amend the NQRS Code. Similar provisions in the *Network Access Code 2004* have been used frequently in the context of Technical Rules and will be largely replicated in the NQRS Code as they are considered to be effective.

The figure below outlines the amendment process, which is similar to the exemption process.

Figure 5.2: Amendment process



The table below shows the timing of for review of amendments and exemptions.

Table 5.1: Amendment and exemption timing

Time periods	Amendment process	Exemption process
Where public consultation is undertaken	Economic Regulation Authority notifies the network service provider of its determination on the amendment as soon as practicable, and not before completion of the time periods nominated within the public consultation process	Economic Regulation Authority notifies the network service provider of its determination on the exemption within 45 days
In other cases	Economic Regulation Authority notifies the network service provider of its determination on the amendment as soon as practicable	Economic Regulation Authority notifies the network service provider of its determination on the exemption within 25 days

The Economic Regulation Authority will be able to further extend deadlines under the revised NQRS Code, with limits placed on the maximum time extension. The complexity of service standards, network capacity planning criteria and power quality performance standards warrants the inclusion of the ability of the Economic Regulation Authority to extend timeframes so that due consideration can be given to any amendments or exemptions by the Authority and by stakeholders during any public consultation.

Application for exemption by network service provider

Network service providers will be able to apply to the Economic Regulation Authority for an exemption from a particular provision of the revised NQRS Code. This will include the new provisions pertaining to the network capacity planning criteria, power quality standards and service standards for Western Power. Provisions for managing exemptions to the revised NQRS Code will be amended consistent with the process for Technical Rules under the *Electricity Networks Access Code 2004*.

The exemption process is described in Figure 5.2 and Table 5.1 above. As with the amendment process, the Economic Regulation Authority may decide whether or not to seek external advice (i.e. from the Reliability Advisory Committee and/or another advisor).

Exclusion or modification by agreement

The existing provisions in the NQRS Code that allows for a customer and the network service provider to agree to modify or exclude certain provisions have been retained and expanded to include the additional service standards, network capacity planning criteria and power quality performance standards. This provision is being retained to allow for network service providers, including Western Power, to continue to negotiate on the specific requirements of the customer's connection. It is intended that in these circumstances amendment or exemption applications to the Economic Regulation Authority can be avoided.

Application for amendment by others

It is intended that anyone else seeking amendment to the NQRS Code may do so indirectly by making representations to either the Minister for Energy⁶, the Economic Regulation Authority or the network service provider. This is to ensure that the administration costs associated with the governance framework are kept to a minimum and that amendments to the NQRS Code are undertaken in an orderly manner having regard to the broader regulatory framework and associated processes.

In addition, interested parties can make submissions directly to the Economic Regulation Authority as part of its public consultation process.

Public register

The revised NQRS Code will require the Economic Regulation Authority to maintain a public register. Public registers are a feature of regulatory transparency, and this register will include:

- applications for exemption and amendments;
- determinations and notices by the Authority;
- issues papers and submissions from public consultation;
- reports provided to and issued by the Authority; and
- copies of the previous and current versions of the Code.

These provisions are largely based upon those that currently exist for the *Electricity Networks Access Code 2004*, and therefore similar obligations are already undertaken by the Economic Regulation Authority.

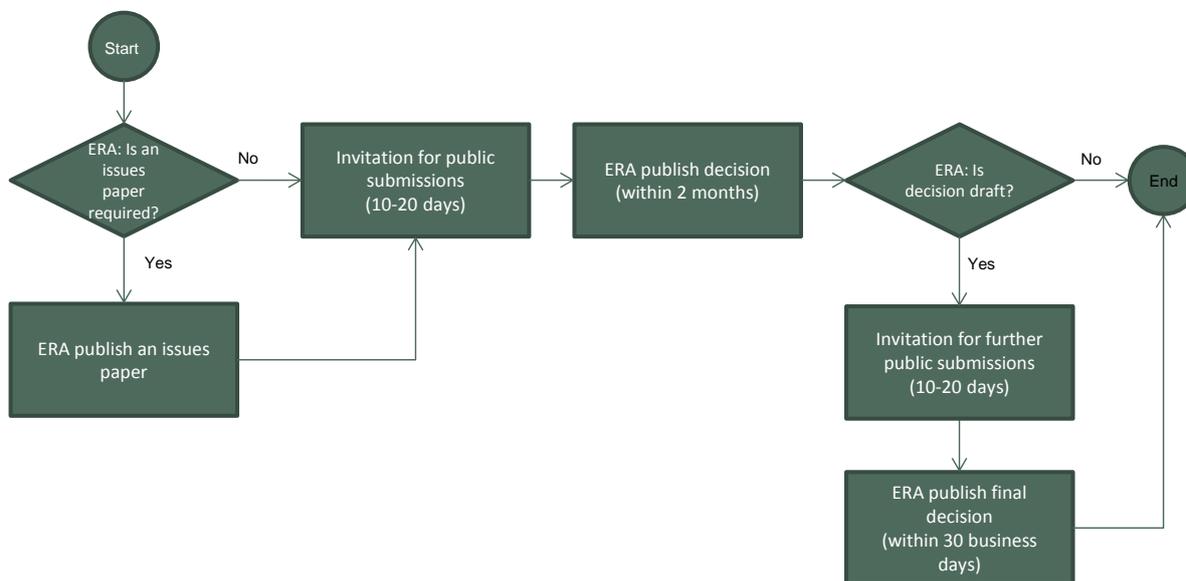
Public consultation

Public consultation requirement under revised NQRS Code will be similar to the public consultation requirements in the *Electricity Networks Access Code 2004*. These have been routinely applied to consideration of matters pertaining to Western Power's Technical Rules. Furthermore, these provisions align with the aspects of good governance already undertaken by the Economic Regulation Authority to promote greater transparency and accountability of the regulatory process.

⁶ Or to the Public Utilities Office who can raise the matter with the Minister for Energy

The figure below outlines the public consultation process.

Figure 5.3: Public consultation process



Summary of changes

The processes to manage changes to the revised NQRS Code will be based largely upon the processes to manage changes to the Technical Rules under the *Electricity Networks Access Code 2004*. These processes have been applied by the Economic Regulation Authority and are considered to be effective and consistent with good governance practice.

The use of an objective will be incorporated into the revised NQRS Code, as a measure of good regulatory practice, and to assist in the decision making process by the Economic Regulation Authority.

A public register and public consultation process will be included in the revised NQRS Code.

Submissions providing feedback on the amendments to manage changes to the Code are encouraged.

5.4 Monitoring compliance with the Code

Compliance with the NQRS Code will continue to be a licence obligation for network service providers in Western Australia. No changes have been made to the monitoring compliance role meaning that the Economic Regulation Authority will continue to enforce the NQRS

Code under the *Electricity Industry Act 2004* electricity licensing system⁷. This maintains the existing regulatory obligations that apply to network service providers in Western Australia.⁸

Eleven network service providers in Western Australia are required to comply with the NQRS Code under their licence, with a two further service providers required to comply by regulation, as shown in the table below.

Table 5.2: Application of the NQRS Code

Licence holder / service provider	Section 1 - Preliminary	Section 2 – Quality & reliability standards	Section 3 - Payments ¹	Section 4 – Matters incidental ²
Western Power (EDL1, ETL2)	✓	✓	✓	✓
Horizon Power (EIRL2)	✓	✓	✓	✓
Rottneest Island Authority (EIRL3)	✓	✓		✓
BHP Billiton (exempt from licence) ³	✓	✓		✓
Rio Tinto (exempt from licence) ³	✓	✓		✓
Alinta DEWAP (EIRL7)	✓	✓		
Alinta Energy Transmission (EIRL6)	✓	✓		
BHP Billiton Nickel West (EDL2)	✓	✓		
Kararra Power (ETL6)	✓	✓		
Newmont Power (EDL4)	✓	✓		
Ord Hydro (EIRL4)	✓	✓		
Southern Cross Energy Partnership (EDL3, ETL4)	✓	✓		
TEC Hedland (EIRL9)	✓	✓		

Notes:

¹ Section 3 applies to Electricity Corporations only (Western Power and Horizon Power)

² Section 4 applies to licensees with one or more small use customers (<160MWh)

³ Condition under clause 11 of the *Electricity Industry Exemption Order 2005* to comply with the *Network Quality and Reliability of Supply Code 2005*

The NQRS Code includes a provision for an independent audit report on the monitoring systems, and is considered to be a necessary element of compliance. This is discussed further in the next section.

⁷ The Authority currently manage the *Network Quality and Reliability of Supply Code 2005* provisions as part of the licensing system, including a combination of Type 2 and non-reportable categories

⁸ Enforcement to network service providers under the *Electricity Exemptions Order 2005* is by the Minister for Energy

5.5 Performance monitoring

The NQRS Code currently requires that network service providers annually publish reports on performance. This will continue with some modification, as discussed below.

Publication of information about performance

The current annual reporting of performance will be retained with some modification to Schedule 1 of the NQRS Code. In the revised NQRS Code the requirement to report on percentile values of interruptions data (items 14) and the graphical representation of this information (item 15) has been removed as this information adds an additional reporting burden with little practical use. This change will impact all network service providers.

In addition, standard performance reporting on the additional service standards will continue to be required by Western Power. Accordingly, the provisions that exist in Chapter 11 of the *Electricity Networks Access Code 2004* for the monitoring of service standards will be transferred into the revised NQRS Code. It is intended that Western Power will continue to publish its annual Service Standard Performance Report. This additional reporting requirement will only apply to Western Power.

Annual report on monitoring systems

The NQRS Code currently includes the requirement for an annual audit report by an independent expert on the “operation of the systems” for monitoring of compliance with Part 2 of the NQRS Code. This will continue with some modification to the frequency of the audit report.

The revised NQRS Code provides for more flexibility by allowing the Economic Regulation Authority to vary the audit frequency between a maximum of annually to a minimum of three-yearly. The intent is for the audit frequency and therefore the cost to be reduced if the performance of the network service provider is consistently adequate. Conversely if an audit reveals material issues, the Economic Regulation Authority may require up to an annual audit report on monitoring systems. This change will apply to all network service providers.

Monitoring and record keeping

The monitoring and record keeping requirements in the NQRS Code will continue with an additional requirement placed on Western Power. Provisions from the Technical Rules that require Western Power to take measurements to ensure compliance with certain network performance standards, such as flicker severity and negative sequence voltage, will be transferred to the revised NQRS Code.

Summary of changes

The existing performance monitoring provisions have been retained with some reporting requirements removed. Western Power will report on its service standards to the Economic Regulation Authority.

The frequency of compliance audits has been modified to allow for them to be extended to up to a three-yearly cycle. This will reduce the costs to consumers. Provision will be retained for the Economic Regulation Authority to increase the frequency if deemed necessary.

Submissions providing feedback on the amendments to performance monitoring are encouraged.

5.6 Funding of the governance framework

The funding of the Economic Regulation Authority's governance functions (including any costs associated with the advisory committee) will be via industry funding through holders of electricity licences. The funding mechanism will be incorporated into the existing *Economic Regulation Authority (Licensing Funding) Regulations 2014*.

The funding of the governance framework is to be included in the licensing funding because the compliance and performance monitoring aspects of the governance framework are currently undertaken by the Economic Regulation Authority and already funded through the *Economic Regulation Authority (Licensing Funding) Regulations 2014*. In addition, under the new governance framework it will be network businesses that drive the amendment and exemption processes and when reviews are initiated by the Minister for Energy or the Economic Regulation Authority it will be customers that derive benefit from the review.

The Economic Regulation Authority's costs associated with the governance functions will be shared between all licence holders using the existing allocation method with the following exceptions which will be recovered as specific charges:

- any additional costs incurred by the Economic Regulation Authority in assessing any amendment to aspects of the NQRS Code that apply only to Western Power will be recovered as a specific charge applied to Western Power, as only Western Power and its customers will derive any benefit from the amendment.
- any additional costs incurred by the Economic Regulation Authority in assessing an exemption to aspects of the NQRS Code will be recovered as a specific charge to the network service provider seeking the exemption, as the exemption will only apply to that network service provider.

It is anticipated that the additional cost associated with the governance functions will be at most in the order of \$300,000 - \$400,000 per year. Under the existing allocation method adopted for licensing funding this will be allocated between licence holders with Western Power paying approximately 44 per cent, Horizon Power paying approximately 4 per cent and all remaining licence holders contributing towards the remainder.

Submissions providing feedback on the method of cost recovery and funding arrangements for the NQRS Code are encouraged.

6. Implementation considerations

6.1 Transitional matters

The revised NQRS Code provides for the transition of the following matters from the commencement of the amendments to the NQRS Code on 1 July 2018:

- Service Standards nominated for non-reference services within Western Power's Access Arrangement will be treated as exclusions or modifications where there is written agreement with the customer;
- Western Power's transmission and distribution systems and facilities existing at 1 July 2007 will be deemed to comply with the network capacity planning criteria and power quality performance standards transferred into the revised NQRS Code; and
- Existing exemptions approved by the Economic Regulation Authority to the relevant Technical Rules will continue to apply.

6.2 Legislative requirements and timing

The revised NQRS Code will apply from 1 July 2018. Until 30 June 2018, the quality and reliability standards that currently exist in the NQRS Code, Access Arrangement and Technical Rules will continue to apply.

The amendments to the revised NQRS Code will be implemented in two phases.

1. In late-2106 the amendments to the network capacity planning criteria, power quality performance standards and service standards provisions that will apply to Western Power from 1 July 2018 will be reflected in a revised NQRS Code. Gazetting the changes at this time allows the Australian Energy Regulator's first determination on Western Power's regulatory proposal to provide for the costs associated with complying with the revised NQRS Code in the first regulatory control period. The Australian Energy Regulator's regulatory determination process commences in April 2017 with Western Power's submission.
2. The amendments to the governance framework will be gazetted in 2017 following the passage of amendments to the *Electricity Industry Act* through Parliament.

7. Consultation process for this Position Paper

7.1 Invitation for submissions

Respondents are invited to comment on all aspects addressed in this position paper.

Submissions are due by 7 October 2016 and must be sent to the following email address: electricitymarketreview@finance.wa.gov.au

Email submissions are to be entitled “NQRS Code Position Paper Response - [Name of the submitting company or individual]”.

7.2 Publication of submissions

Submissions will be available for public review at www.finance.wa.gov.au/publicutilitiesoffice, unless you request otherwise.

Please indicate clearly on the front of your submission if you wish all or part of it to be treated as confidential. Contact information, other than your name and organisation (where applicable) will not be published.

Requests may be made under the Freedom of Information Act 1992 (WA) for any submissions marked confidential to be made available. Requests made in this manner will be determined in accordance with the provisions under that Act.

8. Disclaimer

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